

Clean copy of the Claims

Please cancel Claims 11 and 14 without prejudice and without disclaimer of the subject matter contained therein. Please amend claims 1-10, 12-13, and 15-18 as follows:

34 1. (Amended) A plastid transformation and expression vector for stably transforming a plastid which comprises an expression cassette comprising, as operably linked components in the 5' to the 3' direction of translation, a plastid promoter which is operative in said plastid, a selectable marker sequence, a heterologous DNA coding sequence for a cytotoxic antimicrobial peptide (AMP), a transcription termination sequence functional in said plastid, and flanking each side of the expression cassette, a flanking DNA sequence which is homologous to a DNA sequence of the plastid genome, whereby stable integration of the heterologous DNA coding sequence into the plastid genome of a target plant's cell is facilitated through homologous recombination of the flanking sequence with a homologous sequence in the plastid genome.

2. (Amended) The vector of claim 1, wherein the plastid is selected from the group consisting of chloroplast, chromoplast, amyloplast, proplastide, leucoplast and etioplast.

3. (Amended) The vector of claim 1, wherein the cytotoxic antimicrobial peptide is selected from the group consisting of defensin, PGLa (frog skin), cecropin, apidaecin, melittin, bombinin and magainin.

4. (Amended) The vector of claim 1, wherein the cytotoxic antimicrobial peptide is magainin I or II.

5. (Amended) The vector of claim 1, wherein the selectable marker sequence is not an antibiotic selectable marker sequence.

6. (Amended) The vector of claim 1 wherein the vector is competent for stably integrating into a plastid of different solanaceous, monocotyledonous or dicotyledonous plant species and wherein the flanking DNA sequences are homologous to a spacer sequence in the plastid and the heterologous DNA coding sequence is conserved in the plastid solanaceous, monocotyledonous or dicotyledonous plant species.

7. (Amended) A stably transformed plant and progeny thereof, which comprises a plastid stably transformed with the vector of claims 1, 2, 3, 4, 5 or 6.

8. (Amended) The stably transformed plant of claim 7 wherein the plant is a solanaceous plant.

34
cont
9. (Amended) The stably transformed plant of claim 7 wherein the plant is a monocotyledonous or dicotyledonous plant.

10. (Amended) The stably transformed plant of claim 9 wherein the plant is maize, rice, grass, rye, barley, oat, wheat, soybean, peanut, grape, potato, sweet potato, pea, canola, tobacco, tomato or cotton plant.

12. (Amended) The stably transformed plant of claim 7 wherein a chloroplast is stably transformed.

35
13. (Amended) The stably transformed plant of claim 7 wherein the transformed plastid of the plant and subsequent generations of the stably transformed plant are can exhibit enhanced levels of exogeneous gene expression.

15. (Amended) A method for stably transforming a target plant to control a phytopathogenic bacteria, wherein the method comprises introducing the integration and expression vector of claims 1, 2, 3, 4, 5 or 6 into a plastid of the target plant, and allowing the target plant to control phytopathogenic bacteria.

36
16. (Amended) The vector of any one of claims 1 - 6, wherein the antimicrobial peptide is a cationic amphiphilic alpha-helix molecule which has affinity for negatively charged phospholipides in the outer membrane of a target bacteria and forms aggregates that disrupt and lyse the bacterial membrane of the target bacteria, and in the prevention of the spread of infection by the target bacteria.

17. (Amended) The vector of any one of claims 1-6, wherein said vector further comprises a ribosome binding site (rbs) and a 5' untranslated region (5'UTR).

18. (Amended) The method of claim 15, wherein said vector further comprises a ribosome binding site (rbs) and a 5' untranslated region (5'UTR).
